

form to upwardly push the thumb-push cap 20 returning from the lower igniting position (as shown in FIG. 4) to its upper normal position (as shown in FIG. 3) instantly. At that moment, the deformed deformable resistance piece 311 will also restore to its original cylindrical shape. It is worth to mention that the receiving guider 312 further provides an essential function of guiding, the up and down motion of the deformable resistance piece 311.

According to the preferred embodiment as disclosed above, the piezoelectric lighter of the present invention can stop under age children from the usage of the lighter by the limitation of their physical capability without any substantial change to the configuration of the lighter, so that the cost of the present invention is relatively inexpensive. No expensive part or complicate mechanism is added or incorporated. The assembly operation of the present invention is as simple as disposing the deformable resistance piece 311 inside the cap cavity 102, therefore the manufacturing procedure of present invention is easy and in low cost. Since nobody will afford a high price to purchase a disposable piezoelectric lighter as described in the present invention, the above advantages are substantially the important factors for competing in the lighter industry.

I claim:

1. A piezoelectric lighter, comprising:
  - a casing having a liquefied gas cavity defined therein and a cap cavity;
  - a gas ejecting tip appearing from a ceiling of said casing and communicating with said liquefied gas cavity;
  - a windshield mounted on said ceiling of said casing and encircling said gas ejection tip;
  - a piezoelectric unit which is fitted in said casing having an igniting tip connected thereto;
  - a thumb-push cap, which is fitted in said cap cavity of said casing in a vertically movable manner, exposing a top portion thereof above said casing and being attached to a top end of said piezoelectric unit; and
  - a safety apparatus which comprises
    - a pressure absorbing device vertically held between said thumb-push cap and said ceiling of said casing, wherein said pressure absorbing device comprises a cylindrical rubber post and a soft elastic spring coaxially attached to said cylindrical rubber post for urging said thumb-push cap at an upper normal position thereof and providing a press resistance to said thumb-push cap;
    - a holding means integrally affixed to an interior surface of said thumb-push cap for rigidly holding one end of said pressure absorbing device in position; and
    - a receiving means provided in said cap cavity for receiving and supporting another end of said pressure absorbing device in position, wherein said holding means is integrally affixed to an interior surface of said thumb-push cap for rigidly holding one end of said pressure absorbing device in position; and

ing device in position, wherein said press resistance is an additional upward force added to said thumb-push cap in addition to that provided by said piezoelectric unit.

5 2. A piezoelectric lighter, as recited in claim 1, wherein said holding means comprises a holding ring integrally protruded from an inner surface of a top wall of said thumb-push cap for firmly holding a top end of said cylindrical rubber post by inserting said top end of said cylindrical rubber post into said holding ring.

15 3. A piezoelectric lighter, as recited in claim 1, wherein said receiving means comprises a tubular shaped receiving guider which is integrally and upwardly extended from said ceiling of said casing within said cap cavity, wherein said receiving guider is longer than said soft elastic spring and has an inner diameter slightly larger than an outer diameter of a bottom end of said cylindrical rubber post, and that said cylindrical rubber post has a length larger than a distance between said holding means and said receiving guider, wherein said soft elastic spring is placed in said receiving guider and said lower end of said cylindrical rubber post is inserted into said receiving guider and pressed on said soft elastic spring so as to vertically hold said cylindrical rubber post in position, wherein said soft elastic spring provides an elastic force urging upwardly against said cylindrical rubber post and said thumb-push cap so as to retain said thumb-push cap in said upper normal position.

25 4. A piezoelectric lighter, as recited in claim 2, wherein said receiving means comprises a tubular shaped receiving guider which is integrally and upwardly extended from said ceiling of said casing within said cap cavity, wherein said receiving guider is longer than said soft elastic spring and has an inner diameter slightly larger than an outer diameter of a bottom end of said cylindrical rubber post, and that said cylindrical rubber post has a length larger than a distance between said holding means and said receiving guider, wherein said soft elastic spring is placed in said receiving guider and said lower end of said cylindrical rubber post is inserted into said receiving guider and pressed on said soft elastic spring so as to vertically hold said cylindrical rubber post in position, wherein said soft elastic spring provides an elastic force urging upwardly against said cylindrical rubber post and said thumb-push cap so as to retain said thumb-push cap in said upper normal position.

35 5. A piezoelectric lighter, as recited in claim 3, wherein said top end of said cylindrical rubber post is glued to said holding ring.

40 6. A piezoelectric lighter, as recited in claim 4, wherein said top end of cylindrical rubber post is glued to said holding ring.

\* \* \* \* \*